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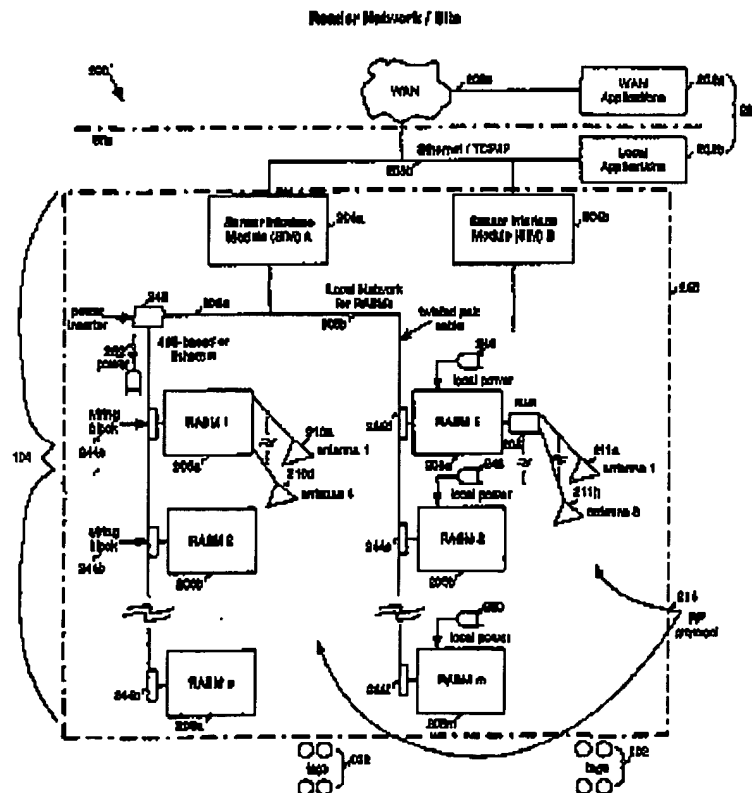
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(54) Title: RADIO FREQUENCY IDENTIFICATION ARCHITECTURE

(57) Abstract: A radio frequency identification (RFID) architecture is described. RFID tags are interrogated by a reader, which may be located in a network of readers. The reader transmits symbols to the tags. Tags respond to the interrogations with symbols that each represent one or more bits of data. An RFID tag includes an antenna pad, a receiver, a state machine, a charge pump, and a modulator. The receiver is coupled to the antenna pad. The receiver receives a symbol from the antenna pad and outputs a received signal. The state machine is configured to determine a response symbol from the received signal and an operating state of the tag. The modulator is coupled to the antenna pad. The modulator is configured to backscatter modulate the received symbol with the response symbol. The modulator is configured to output the backscatter modulated symbol to the antenna pad. The charge pump is configured to convert a received high frequency signal to a substantially direct current (DC) voltage.

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